

U.S. GEOLOGICAL SURVEY
CHARLES D. WALCOTT, DIRECTOR

ECONOMIC GEOLOGY

NORTH CAROLINA-TENNESSEE
ASHEVILLE QUADRANGLE

LEGEND

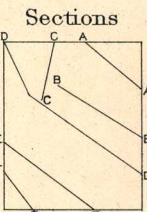
LEGEND (continued)

METAMORPHIC ROCKS OF UNKNOWN ORIGIN



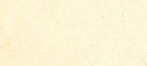
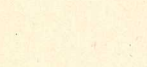
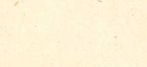
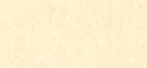
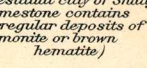
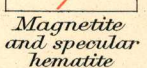
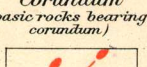
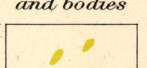
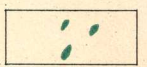
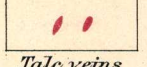
Carolina gneiss
(chiefly mica-quartz and mica-schist; includes other gneisses, granites and diorites and small lenses of marble)

Faults



Mines
Prospects

Known productive formations



SEDIMENTARY ROCKS

(Areas of sedimentary deposits are shown by patterns of parallel lines)

Oa

Athens shale
(blue and black calcareous shale)

Knock dolomite
(light and dark magnesian limestone with chert nodules)

Kn

Nolichucky shale
(variegated calcareous shale and thin limestone)

Chk

Honaker limestone
(blue and gray limestone)

Cw

Watauga shale
(purple, reddish, and yellow shales and sandy shale)

Csh

Shady limestone
(gray and blue cherty limestone with beds of marble near the base)

Ch

Hesse quartzite
(chiefly white quartzite)

Emr

Murray slate
(grayish slate and shale, with sandy layers)

Enb

Nebo quartzite
(chiefly white quartzite)

Enc

Nichols slate
(grayish slate and shale, with sandy layers)

Ent

Nantahala slate
(dark slate and mica schist, with banded orthoite schist)

Enq

Quartzite lentil in Nichols slate
(chiefly white quartzite)

Ch

Cgs

Cochran conglomerate
(gray conglomerate, with beds of slate)

Chi

Great Smoky conglomerate
(chiefly graywacke, with beds of schist)

Chi

Hilwasee slate
(chiefly dark banded slate and schist, with layers of limestone, ls, and sandy beds)

Csb

Snowbird formation
(chiefly light-colored sandstone, with sandstone, conglomerate, and arkose)

IGNEOUS ROCKS

(Areas of igneous rocks are shown by patterns of triangles and rhombs; metamorphism is indicated by hachures)

Amr

Metarhyolite
(gray and black rhyolite, with sandstone and schistose)

Amr

Metadiabase
(altered greenish diorite and gabbro)

Amr

Max Patch granite
(coarse or porphyritic granite, light gray or red)

Amr

Cranberry granite
(mainly granite and granite-gneiss)

Amr

Soapstone, dunite, and serpentine

Amr

Metagabbro
(altered black and dark gabbro)

Amr

Roan gneiss
(chiefly hornblende-gneiss and diorite)

Amr

Amr

Amr

Amr

Amr

Amr

Amr

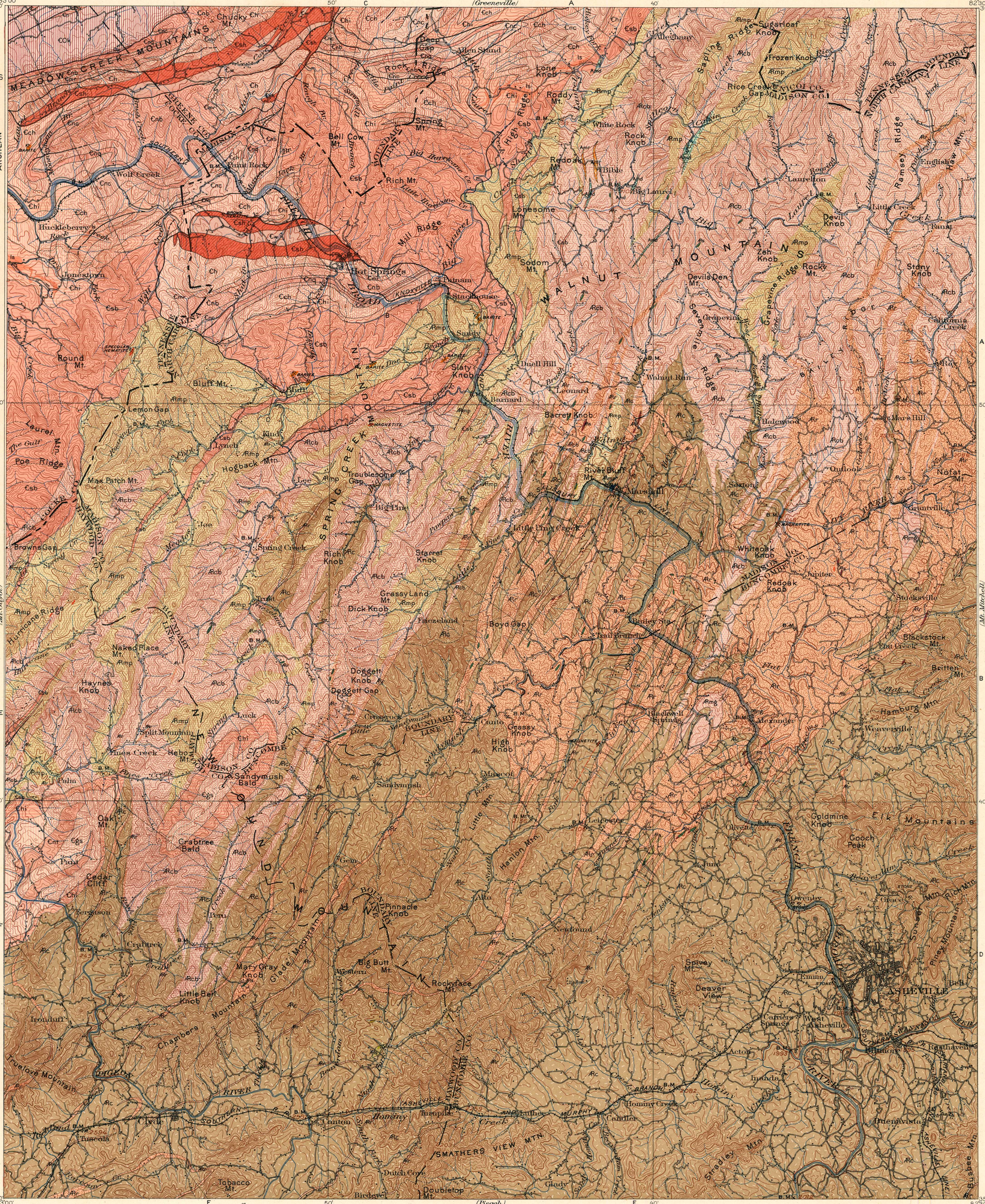
Amr

Amr

Amr

Amr

Amr



H.M. Wilson, Geographer in charge.
Triangulation by W.C. Kern and S.S. Gannett.
Topography by W.L. Miller.
Surveyed in 1898-99.

Scale 1:25,000
1 2 3 4 5 Miles
1 2 3 4 5 Kilometers
Contour interval 100 feet.
Datum is mean sea level.
Edition of July 1904.

Geology by Arthur Keith.
Assisted by H.B. Goodrich and H.S. Gale.
Surveyed in 1893, 1900, 01, and 02.

Legend is continued on the left margin.